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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,392	05/02/2001	Martin Matula	SUN-P5775CNT	2740

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EXAMINER	
CAO, DIEM K	

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/848,392	MATULA ET AL.	
	Examiner	Art Unit	
	Diem K Cao	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *67-122* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *67,68,71,75,83-85,88,92,100,101,104,108,111-113,116 and 120* is/are rejected.

7)☒ Claim(s) *69-70,72-74,76-82,86-87,89-91,93-99,102-103,105-107,109-110,114-115,117-119,121-122* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 67-122 remain in the application. Applicant has cancelled claim 1, and amended claims 69-70, 72-74, 78-82, 86—87, 89-91, 95-99, 102-102, 105-108, 114-115, and 117-119.

Specification

2. The disclosure is objected to because of the following informalities: Amendment to the specification filed on 8/23/2004 recites "U.S. Patent Application Serial No. 08/847,770 ... commonly assigned herewith", the application number and the title are not matched. The application number should be 09/847,770.

Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 67, 83, 100 and 111 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 17, 34 and 50 of copending Application No. 09/847,781. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only different between the instant application and the copending application is the instant application claims an apparatus for dynamic implementation of a Java Metadata Interface to a metamodel while the copending application claims a method for dynamic implementation of a Java Metadata Interface to a metamodel.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

5. Claims 69-70, 72-74, 76-82, 86-87, 89-91, 93-99, 102-103, 105-107, 109-110, 114-115, 117-119, and 121-122 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 67, 83-84, 100, and 111-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Dynamic Proxy Classes (Sun).

8. **As to claim 67**, APA teaches means for receiving a JMI the request associated with a metamodel (generated set of APIs, applications can access information contained in a MOF compliant model; page 5, lines 17-24 and access a metamodel; page 6, lines 20-24), the metamodel comprising at least one package (package; page 6, lines 1-18), the at least one package comprising at least one class (class; page 6, lines 1-18), the at least one class comprising at least one attribute, reference or operation (attribute, reference, method; page 6, lines 1-18). APA also teaches the user manually develops the software implementation for the JMI interfaces (page 6, lines 202-4).

9. However, APA does not teach means for implementing a package proxy JMI interface when the request comprises a package proxy request, means for implementing a class proxy JMI interface when the request comprises a class proxy request, and means for implementing a class instance JMI interface when the request comprises a class instance request. Sun teaches a dynamic proxy class that implements a list of interfaces specified at runtime when the class is created (page 1), or requested (page 2), and different type of proxy classes are created when there are different type of requests (page 2).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine and improve the teaching of APA and Sun because it will improve the performance of APA' system because it does not required pre-generation of the proxy class, such as with compile-time tools.

11. **As to claim 83**, APA teaches receiving a JMI implementation request and the request associated with a metamodel (applications can access information contained in a MOF compliant model; page 5, lines 17-24 and access a metamodel; page 6, lines 20-24), the metamodel comprising at least one package (package; page 6, lines 1-18), the at least one package comprising at least one class (class; page 6, lines 1-18), the at least one class comprising at least one attribute, reference or operation (attribute, reference, method; page 6, lines 1-18). APA also teaches the user manually develops the software implementation for the JMI interfaces (page 6, lines 202-4).

12. However, APA does not teach means for implementing a JMI interface when the JMI interface is unimplemented, and means for executing a stored JMI interface implementation when the JMI interface is implemented. Sun teaches means for implementing a list of interfaces when the list of interfaces is unimplemented (a proxy class for those interfaces will be generated dynamically and defined in the class loader; page 2), and means for executing a stored interface implementation when the list of interfaces is implemented (if a proxy class for the same permutation of interfaces has already been defined in the class loader, then the existing proxy

class will be returned; page 2, lines 1-4 and the implementation of the dynamic proxy class API should keep a cache of generated proxy classes; page 2, last paragraph).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of APA and Sun because it will improve the performance of APA' system because it does not required pre-generation of the proxy class, such as with compile-time tools and re-used the one that already implemented.

14. **As to claim 84**, APA does not teach means for implementing a package proxy JMI interface when the request comprises a package proxy request and when the package proxy JMI interface is unimplemented, means for implementing a class proxy JMI interface when the request comprises a class proxy request and when the class proxy JMI interface is unimplemented, means for implementing a class instance JMI interface when the request comprises a class instant request and when the class instance JMI interface is unimplemented, means for executing a stored packaged proxy JMI implementation when the request comprises a package proxy request and when the package proxy JMI interface is implemented, means for executing a stored class proxy JMI implementation when the request comprises a class proxy request and when the class proxy JMI interface is implemented, means for executing a stored class instance JMI implementation when the request comprises a class instance request and when the class instance JMI interface is implemented.

15. Sun teaches a dynamic proxy class that implements a list of interfaces specified at runtime when the class is created (page 1) or requested (page 2), multiple proxy classes are created when there are multiple requests that are distinct (page 2), means for implementing a list of interfaces when the list of interfaces is unimplemented (a proxy class for those interfaces will be generated dynamically and defined in the class loader; page 2), and means for executing a stored interface implementation when the list of interfaces is implemented (if a proxy class for the same permutation of interfaces has already been defined in the class loader, then the existing proxy class will be returned; page 2, lines 1-4 and the implementation of the dynamic proxy class API should keep a cache of generated proxy classes; page 2, last paragraph).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of APA and Sun because it will improve the performance of APA' system because it does not required pre-generation of the proxy class, such as with compile-time tools and re-used the one that already implemented.

17. **As to claim 100**, see rejection of claim 67 above.

18. **As to claims 111-112**, see rejections of claims 83-84 above.

19. Claims 68, 71, 75, 85, 88, 92, 101, 104, 108, 113, 116, and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Dynamic Proxy Classes (Sun) further in view of Guthrie et al (U.S. 6,385,661 B1).

20. **As to claim 68**, APA does not teach means for generating bytecode for a class that implements the package proxy JMI interface, means for creating a new instance of the class, and means for returning the instance. Sun teaches creating a new instance of the dynamic proxy class that implements a list of interface at run time (a proxy instance; page 1 and creating a proxy instance; page3 and proxy instance properties; pages 3-5), and means for returning the instance (creating a proxy instance; page3 and proxy instance properties; pages 3-5). Guthrie teaches means for generating bytecode for a class that implements the interface (a reflection process … generate the byte codes into a .class file, subject class 19; col. 5, lines 7-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of APA and Guthrie because it will improve the performance of APA' system by reduce development time and increases developer productivity since the developer does not have to manually generate the remote proxy classes.

21. **As to claim 71**, APA does not teach means for generating bytecode for a class that implements the class proxy JMI interface, means for creating a new instance of the class, and means for returning the instance. Sun teaches creating a new instance of the dynamic proxy class that implements a list of interface at run time (a proxy instance; page 1 and creating a proxy instance; page3 and proxy instance properties; pages 3-5), and means for returning the instance (creating a proxy instance; page3 and proxy instance properties; pages 3-5). Guthrie teaches means for generating bytecode for a class that implements the interface (a reflection process … generate the byte codes into a .class file, subject class 19; col. 5, lines 7-22). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of APA and Guthrie because it will improve the performance of APA' system by reduce development time and increases developer productivity since the developer does not have to manually generate the remote proxy classes.

22. **As to claim 75**, APA does not teach means for generating bytecode for a class that implements the class instance JMI interface, means for creating a new instance of the class, and means for returning the instance. Sun teaches creating a new instance of the dynamic proxy class that implements a list of interface at run time (a proxy instance; page 1 and creating a proxy instance; page3 and proxy instance properties; pages 3-5), and means for returning the instance (creating a proxy instance; page3 and proxy instance properties; pages 3-5). Guthrie teaches means for generating bytecode for a class that implements the interface (a reflection process … generate the byte codes into a .class file, subject class 19; col. 5, lines 7-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of APA and Guthrie because it will improve the performance of APA' system by reduce development time and increases developer productivity since the developer does not have to manually generate the remote proxy classes.

23. **As to claims 85, 101 and 113**, see rejection of claim 68 above.

24. **As to claims 88, 104 and 116**, see rejection of claim 71 above.

25. **As to claims 92, 108 and 120**, see rejection of claim 75 above.

Response to Arguments

26. Applicant's arguments filed 8/23/2004 have been fully considered but they are not persuasive.

27. In the remarks, Applicant argued in substance that (1) the provisional obviousness-type double patenting rejection is not proper, (2) APA and Sun does not teach the limitations "means for receiving a JMI implementation request", and "means for implementing a class instance JMI interface when said request comprises a class instance request", and (3) APA and Sun fails to teach or suggest "means for implementing a JMI interface" and "means for executing a stored JMI interface".

28. Examiner respectfully traverses Applicant's remarks:

As to the point (1), the Examiner would like to point out that no restriction requirement was given in the previous Office action between the method and apparatus claims, therefore, the arguments regarding restriction requirements are not persuasive. As a matter of fact, a method claim and an apparatus claim of the same invention could exist in one application. Also, the claims in this instant application define an invention that is merely an obvious variation of an invention claimed in the parent application, therefore, the double patenting is correct (see MPEP 804.B).

As to the point (2), APA teaches receiving a request associated with the metamodel, and Sun teaches the proxy class is created upon receiving a request, wherein different request generated different proxy classes (see rejection of claim 67 above). Also, the claims are rejected under the combination of both APA and Sun, given the teachings of both as set forth above, one of ordinary skill in the art would be motivated to combine both teachings and improve them to have the system dynamically generated different type of implementations for different classes upon receive different requests which is suggested by Sun.

As to the point (3), Examiner clearly set forth in the rejection that Sun teaches "means for implementing an interface" and "means for executing a stored interface implementation" (see rejection of claim 83 above). Again, Examiner would like to remind that the claim is rejected under the combination of APA and Sun, not APA nor Sun alone. Thus, APA and Sun teach the claim limitations.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220 or (571) 272-3760 (effective November 1st 2004). The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678 or (571) 272-3756 (effective November 1st 2004). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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